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Vol. XXXVIII No. 9

ALBANY MEDICAL ANNALS

Journal of the Alumni Association of the
Albany Medical College

SEPTEMBER, 1917

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ALBANY MEDICAL ANNALS

Journal of the Alumni Association of the Albany Medical College

ALUMNI COMMITTEE

A. VANDER VEER, M. D. W. G. TUCKER, M. D. ANDREW MACFARLANE, M. D

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Vol. XXXVIII, No. 9 CONTENTS September, 1917

ORIGINAL COMMUNICATIONS

The Influence of Defect and Venereal Diseases Upon the Public Welfare, By ROBERT W. HILL, M. D. 401
Vital Statistics and Co-operation with Statistical Officers.....By WILLIAM H. GUILFOY, M. D. 418

CORRESPONDENCE

Some Personal Incidents.....By T. D. CROTHERS, M. D. 426

EDITORIAL

"A Soldier-Doctor"..... 430

PUBLIC HEALTH

Department of Health, Albany, N. Y.: Abstract of Vital Statistics, July, 1917..... 432

MEDICAL NEWS

Medical Reserve Corps..... 437
Medical Service of the Army and Navy..... 441
Personals..... 442
Died..... 442

IN MEMORIAM

W. N. FLEETWOOD, M. D..... 443
GEORGE W. HOLDING M. D..... 443

CURRENT MEDICAL LITERATURE

Recent Accessions..... 444

MILITARY MEDICINE

Military Medicine and the "Albany Idea"—(Continued)..... 446

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(Continued on page iii)

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Publisher's Department

(Continued from page ii)

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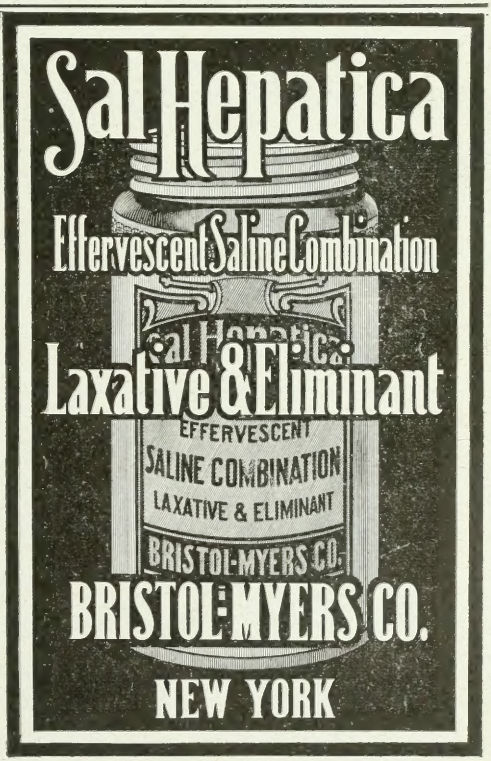

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Publisher's Department

TYPHOID FEVER.—Attention is directed to a timely announcement which appears elsewhere in this journal over the signature of Parke, Davis & Co., and bears the caption "Typhoid Fever." Prophylaxis, diagnosis and treatment, in logical sequence, are briefly and comprehensively considered in this advertisement.

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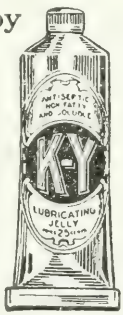

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VOL. XXXVIII SEPTEMBER, 1917 No. 9

ALBANY MEDICAL ANNALS

Original Communications

THE INFLUENCE OF DEFECT AND VENEREAL DISEASES UPON THE PUBLIC WELFARE.

A lecture delivered before the students of the Albany Medical College, March 21, 1917.

BY DR. ROBERT W. HILL,

Superintendent of State and Alien Poor.

Civilization has undertaken the extermination of many social plagues, among others fevers, tuberculosis, and contagious diseases of various types, and for the protection of society is compelling the general recognition of the laws of personal purity and social sanitation. Modern philanthropy has thrown down the gage of battle to mental defect, venereal diseases, commercialized vice, and all the evils, both to individuals and communities, which follow in their train. The conflict has begun, but the moral resources of society must all be enlisted if the battle is to prove successful. Self-denial, faith and courage are required and above all things the power of an educated public opinion, made authoritative by the studies of our physicians and other scientists.

It is well known that the Albany Medical College has arranged its annual lecture course as an educational opportunity for the public to join with the students in the consideration of social problems which are directly related to health, morals and general welfare. Physicians need the moral support of intelligent laymen in these matters else their plans for community improvement may not succeed and by these courses in public health a better understanding of social needs is obtained and both student and laymen are better prepared for efficient work against the many evils which beset society.

Defect a Consequence.

It may appear to some that joining "Defect and Venereal Diseases" in the title of an address brings together social problems which are not always closely related, but when it is remembered that defect is, in many instances, an inheritance directly traceable to specific diseases it is apparent that the consideration of the topic as given may be of assistance to those whose work is largely social sanitation for we now place syphilis and gonorrhoea where they belong—among the virulent contagions which carry their evil effects to posterity, and in very many cases cut off its possibility.

The ravages of venereal disease constitute an ancient scourge with which even modern civilization has not effectively grappled. The child of infected parents may sometimes be born sound but there are terrible possibilities of inherited unsoundness. Unfortunately the social aspects of this grave problem of venereal disease are full of practical difficulties and there is need of a quickening of the public sense to a full realization of wise reform. The medical profession must purge itself of hesitancy and give sincere co-operation in efforts to make known the social danger which exists. Information of an accurate and comprehensive nature, dealing with the prevalency and spread of venereal disease is a vital necessity.

More Deadly than Tuberculosis.

It has been said recently that venereal diseases are more dangerous to society than tuberculosis. The State has waged a protracted campaign against the latter and the public is now familiar with its prevalence and the economic loss which it causes the commonwealth but as illustrative of the more baneful spread of venereal disease the most recent statistics available for the city of New York, the reports of contagious diseases required to be filed with the Department of Health, reveal the fact that so far in the year 1917 the weekly average number of new cases of syphilis has been 471, while the weekly average number of new tuberculosis cases reported has been only 365. If to this weekly average number of new cases of syphilis there is added the

weekly average reported for gonorrhea, there has been so far in 1917 a weekly average of 597 new cases of venereal disease reported. In other words 7,761 new cases of venereal diseases were reported by attending physicians to the New York City Department of Health thus far in 1917 and during the same weeks 4,743 new cases of tuberculosis. Without in any degree minimizing the deadly effect of tuberculosis it is apparent that the social menace of venereal disease is even more appalling in New York City and no doubt elsewhere in the State similar conditions exist for it must be remembered that all cases of contagious disease are not reported as required by law. The real facts are often suppressed for personal reasons, but even with the knowledge that they fall far short of the real number of cases the figures presented show the fearful prevalence of venereal disease.

Problem Both Social and Economic.

The numerous institutions supported by the State of New York for the custodial care of the feeble-minded, the epileptic, and for insane individuals unfitted for self-care, and the large numbers in each of these groups, makes it apparent that we have for solution not only a grave social problem, but one with an economic side as it involves annually a very large expenditure of public funds. When attention is directed to the thousands of mental defectives segregated in institutions the importance of the economic phase of the problem is apparent. The more dangerous and important phase is the freedom of the multitude of defectives who should be under institutional care. Those who are placed in custodial asylums and in State hospitals can be effectively controlled, but those not under restraint are often carriers of contagious disease, corrupters of morals, and breeders of undesirable children who in turn become dangerous to public welfare. If it were possible to cut off the propagation of the defective and unfit, men and women would soon become what society desires—strong, progressive, intelligent, moral and able to cope with the ever-changing conditions which affect human life. Unfortunately society has long suffered from the weakening influences disease and defect which are constantly undermining the physical and

mental powers, each century apparently increasing the evil until now the welfare of the whole race is menaced.

As has been said, the mental defectives in our communities are frequently the carriers of disease and this is especially true of the so-called venereal or sexual diseases. It must not be understood, however, that the feeble-minded alone are involved in the spread of these contagious diseases, for their prevalence must be laid at the door of others. The inability of the feeble-minded to protect themselves makes them not only victims of venereal disease but its propagators also and in the final settlement of responsibility we find them associated with conditions which assure their injury and that of society as well.

There has been great reluctance to speak plainly of social or sex evils but surely the voice of warning should be lifted by the physician who has been educated to protect health and prolong life, to guard the young and maintain the vigor of old age. In the social program he should know and point out to others the special evils which beset society and be informed of all that science is doing to prevent the spread of disease and place safeguards at the sources of life.

Venereal Disease Among Criminals.

In times past society struggled against disease more or less blindly. Now, however, scientists and investigators have discovered the causes of many diseases heretofore baffling, among them the venereal diseases, for which science has found the means of control. Since the introduction of the Wassermann test as a diagnostic measure we have reliable information concerning the prevalence and proportion of syphilis in our state. Heretofore we have guessed at the prevalence of the disease but now we are accumulating statistics of scientific value. For example, tests made on all the patients admitted to Bellevue and the Presbyterian Hospitals in New York City recently showed that there are between 20 and 25 syphilitics in each 100 cases taken under care, while the Wassermann tests of 4,000 patients in the Peter Bent Bingham Hospital in Boston gave 600 positives, indicating that 15 per cent of the patients were affected. These figures however do not cover the prevalence of this disease in either

New York or Boston, because people often go to hospitals for "heart trouble" and local "nerve disorders" not directly referable to an infection but which may be due to an inherited weakness caused by the disease.

Prisoners and Delinquents.

The Health Department of New York City recently made a series of tests with startling results; 291 men awaiting trial in the Tombs prison were tested for syphilis and 45 of them or 11.5% were found infected with the spirochetae. At Hart's Island the blood test of 544 boys committed as delinquents proved that 37 or 6.8% were syphilitic. Of 258 prisoners in the penitentiary on Blackwell's Island, where both sexes were examined, 62 or 24.5% had syphilis and of 2,621 men and women committed to the workhouse the blood of 45.7% gave positive reactions, thus proving that of this special group of 3,809 prisoners committed for short terms 42.2% were syphilitic. As many of the other prisoners were under treatment for gonorrhoea this one group makes it apparent that the prevalence of venereal disease among criminals constitutes a real social menace.

But the foregoing figures, startling though they are, do not include the younger class of delinquents who are inmates of state reformatory institutions and in three of them the percentage of inmates who when committed had venereal diseases is equally high. Both the New York State Reformatory for Women at Bedford Hills and the Western House of Refuge for Women at Albion receive young women, between the ages of 16 and 30 years, who are not insane. These women are sentenced for misdemeanor, petty larceny, vagrancy, habitual drunkenness, prostitution or for frequenting disorderly houses or houses of prostitution.

At the Bedford Hills institution examinations have been made of 1,152 inmates of whom nearly 80% had venereal diseases; 12.7% showed syphilis, 27% gonorrhea, and 40% had both diseases. It is not surprising the mental tests of these women indicated that 25% were feeble-minded. They are committed from the metropolitan district chiefly.

At the Western House of Refuge, Albion, to which commit-

ments are made from other sections of the state, the percentage of inmates having syphilitic infection runs much higher. The tests showed 32% positives, which may be accounted for by the fact that recent mental examinations there indicated that 34.9% of all the inmates were distinctly feeble-minded, and that 48% of the others were "mentally retarded." These figures show that in these two institutions for young women of the same physical ages, committed for like offenses against society, 29.8% were found syphilitics and 51% infected with gonorrhea, or in other words that over 80% of all inmates of these State reformatories were carriers of venereal disease.

There must be added to these figures to show the prevalence of venereal disease among inmates of State reformatories those of the New York State Reformatory at Elmira to which young men are committed and where there has been a total of 8,000 admissions to January 1, 1916, of whom 33% had active gonorrhea when admitted or previously and of whom 40% indicated lack of normal mental development.

Thus there are in these three State institutions a large number of delinquent young men and women who during their most active period of virility and strength are disseminating sources of physical contagion and mental defect, and who despite their condition will be allowed the freedom of the State later as their custodial care is only temporary.

Still another detail: The New York State Training School for Girls at Hudson is for the reception of young girls *under* 16 years of age and it has had 1,400 of this class under care. The clinical diagnoses reported by the school show that 7% of the very young girls entered with active gonorrhea and that 3% had active syphilis. The number of congenitals and of those suspected but exhibiting no active symptoms were not reported as the Wassermann tests were of selected cases only. It should be added that in the last two years the diagnoses indicate a greater proportion of these children were affected with gonorrhea than in previous years for the proportion in 1915 was 8% of all admissions and in 1916 15%. While in the first three months of 1917 23% had the disease in an active stage and as in other institutions many were of the feeble-minded class.

Syphilis and Epilepsy.

In a paper read before the Genesee County Medical Society August 1915, the superintendent of Craig Colony for Epileptics states that the Wasserman test was applied to the blood serum of 886 cases, having a history or physical condition that aroused a suspicion of syphilis and that 22 or 2.48% gave positive reactions. Still later in the summer of 1916 the Wassermann test was given to practically the entire population of the Colony, when of 845 males, 1.42% positively reacted to the test as did 1.76% of the 628 females, thus indicating that of a total of 1,473 patients 1.59% were actively syphilitic with the probability that many others were affected although they did not react. There are not many reports on the prevalence of syphilis among epileptics but some writers hold that epilepsy and syphilis are frequently associated as cause and effect but while this may be true it should be stated that insofar as the epileptic class is concerned the proportion of syphilitics is about the same as in the general population and that while "acquired" syphilis is frequently noted in epileptics its influence as a direct cause of epilepsy is not yet known beyond its effect upon the brain and the fact that in many cases doubtless its constitutional effects upon parents prepare the way for onsets.

The available data relative to the feeble-minded in the State Custodial institutions of this State shows 4.2% of all have syphilis indicating that it is three times more prevalent among these dependents than among the epileptics and this in turn connects the tendency to delinquency with the baneful social influence of the feeble-minded. The percentage given is deduced from the fact that in the Rome State Custodial Asylum which receives both male and female feeble-minded patients Wasserman tests made last year on the blood serum of 800 inmates showed 4½% to be syphilitic while in the State Custodial Asylum for feeble-minded women at Newark where 835 inmates were tested in 1916, 4% had syphilis.

Syphilis and Insanity.

Many of the State hospitals for the insane are doing intensive work in the study of certain mental diseases and their relation

if any to specific infection. It has been generally conceded for the past twenty years that paresis is due to a disease of the brain, syphilitic in origin, but until the discovery of the Spirochetae Pallida in 1905 and the use of tests, physicians were not awake to the fact that syphilis holds such a prominent place among the factors which lead to mental derangement. Hence the statistics of the insane have special value when the social menace of venereal disease is under consideration.

The percentages of all admissions in State hospitals due to psychosis, paresis, alcoholic insanity and dementia praecox for the past four years to July 1st, 1916, are suggestive. They were as follows:

	1913	1914	1915	1916	
Paresis.	12.7	12.3	13.1	13.1	(to July 1st)
Alcohol.	9.4	7.4	5.6	6.1	(to July 1st)
Dementia praecox . . .	16.8	18.0	21.3	18.5	(to July 1st)
	38.9	37.7	40.0	37.7	

Ignorance and Disease.

It will be observed that approximately 38% of all admissions were of patients of these three classes, and as stated heretofore behind the effect there was in a large proportion of the cases a common cause—poisoned blood. In this connection the fact that all these cases were between 15 and 44 years of age on admission is of interest as is the fact while all the dementia praecox cases were committed by their thirtieth year, and ages of the paresis cases admitted ranged between 15 and 40 years of age, although the average of admissions was fairly constant from year to year.

As a passing comment upon the effect of venereal disease upon mental development it may be said that a large proportion of the insane whose condition is traceable to syphilis shows that education stopped early in life because the degenerative factor gained control at the period of greatest mental stress. For example, in the cases of paresis and dementia praecox although 61% had attended common schools only 5% had gone to high school and 23.4% could only read and write their names and a few short sentences.

The Terrible Toll.

Recently 408 patients committed to the Buffalo State Hospital from October 1, 1914 to September 30, 1915 were tested and 12% were found cases of paresis and cerebral syphilis, while there was a positive Wassermann reaction in 16.4% of all tested. Wassermann tests were also given to 2,838 other patients, men and women, including all types of mental derangement, of whom 13.77% showed positive reactions. Of these syphilis patients, the majority were men as was also the case in the "general paralysis," "brain syphilis" and "tabes" groups.

Another series of tests were made on 2,601 cases. From this series all cases of general paralysis, brain syphilis and tabes were excluded, yet 6.38% of the others showed syphilitic infection. In this connection it may be stated the proportion is practically the same in other states, as for example in Massachusetts where the clinical findings in a group of 1,573 patients tested since May 1912 in the State Hospital at Danvers, show that 16% of all were positively syphilitic and most of this group were victims of paresis.

Common Danger.

Other statistics are also illuminating as to the danger of the public. Thus in the examination of 1,107 applicants for peddlers' licenses in New York City, 8.2% gave a positive Wasserman reaction, and doubtless their assistants were equally affected which is an indication of the danger of spreading the disease by their handling of food. Then too the New York State Department of Health reported in its first year of laboratory service the examination of over 5,000 specimens from cases of suspected syphilis and in 1916 the number of such specimens had increased to 21,000 and the diagnoses (Wasserman) of syphilis were double the number of the preceding year, while to go further afield to estimate the social danger, the report of the Public Health Commission of Minnesota says:

"The importance of the venereal diseases as a public health problem becomes increasingly apparent. When we say that gonorrhea and syphilis cause untold social and economic loss we are admitting our inability to obtain a reasonable estimate through

reliable statistics. As has been stated, vital and morbidity statistics are the basis of public health science.

"The disease known as ophthalmia neonatorum causes the loss of sight in large numbers of cases. This infection is communicated at birth but may be entirely eradicated by the use of a simple prophylactic, supplied by the State Board of Health which has now authority to require its use on the eyes of the newly born."

A Military Problem.

In this time of world war it should be said that not only at home in times of peace but in the camps of all the nations at war venereal diseases are reducing military strength on the battle front and everywhere corrupt law, order and efficiency.

Thus a writer in *The Military Surgeon,* July 1916, says:

"In the campaign of 1870—42.6% per thousand of the sick of the average mobilized forces were recorded as receiving treatment for venereal diseases.

"In the present war a thorough and careful inspection of 2,200 men revealed over 60% of lesions found upon almost every part of the body, this diagnosis being substantiated by a Wasserman reaction.

"Statistics of the French, German and Austro-Hungarian armies show that the number of troops both in the home zone and on the front are acquiring venereal diseases with results that far out-distance the records of any previous wars."

Of course this is only an estimate of the prevalence of syphilis as the men tested were of those who requested medical care. It is however certain that venereal diseases are now very prevalent in armies and seriously weaken the fighting forces.

Wherever camps are established camp followers gather and carry venereal disease. Unrelaxing vigilance alone can prevent its steady dissemination. In such camps both the National Guard and the regular army soldiers are ever beset by temptations and the moral danger to which they are exposed is constant and deadly. Although remedial measures are taken neither prophy-

laxis nor cure equal moral control and prevention, and therefore it is well to know that special efforts are to be made by a federal commission to combat the peril which commercialized vice presents so that American soldiers in the field may not suffer from this evil as have the armies of Europe.

Gonorrhea Wide-Spread.

While syphilis is thus a deadly social plague, it should not be forgotten that gonorrhea is also deadly and equally a menace to society—and has far reaching after-effects especially on females as it causes invalidism and sterility and 80% of the abdominal operations on young women. Some indication of its prevalence may be deduced from the fact that at the Boston Dispensary the director states 1,500 cases of gonorrhea in men and boys are treated annually and at the Venereal Clinics A and B, in New York City 70% of all applicants for treatment had acute gonorrhea, the sources of infection being distributed as follows:

37	per cent—	street prostitutes
19	"	house prostitutes
10	"	domestics.
10	"	were " friends "
8	"	working women
2	"	wife
15	"	unknown

From this it is apparent that cases of venereal disease are usually associated with the social evil and with alcohol and it is well to note here that 19.4% of all commitments to the State hospitals for the criminal insane in 1915 were found to be due to alcohol as immediate causal factor, while in the civil hospitals the percentage was 10.2% or over 9% less.

The Association with Other Diseases.

Another important fact for consideration is that venereal disease is associated with other diseases and is frequently their cause. Even laying aside its terrible terminal effects on the brain and spinal cord it is found that syphilis seems to ravage

nerve, bone, blood and tissue all along its route, and opens the way for the more serious organic diseases. This is evidenced by the fact that in 500 autopsies on syphilitics summarized from the records of Leipzig Hospital recently, it was found that 80% had more or less grave disease of the aorta, while in the hospital of the University of Michigan of 390 gynecologic patients subjected to the Wasserman test—5.6% showed syphilitic infection, and in 132 cases of malignant diseases of various types, Dr. Bushman, serologist to Barnard Free Skin and Cancer Hospital, St. Louis, reported 6% associated with syphilis.

Progress and Pathological Effects.

But enough of statistics—what can be done to remedy the increasing evils? The causes of venereal diseases are well known. Their effects on body and mind are manifest yet society has made little effort to protect itself from their direful consequences. It is aware of what takes place when these diseases are established but seems indifferent. The victims of syphilis themselves fail to appreciate, until too late, the abnormal changes which take place in the body. They may notice at first a small localized lesion which may appear on any part of the body and yet not realize it is due to contact with the specific virus or serum and which contains the Spirochaetae Pallida. The condition becomes painful for the lesion exposes nerve endings and involves the capillaries and glandular network, and soon there is a breakdown of tissue, with an over supply of serum due to the irritation of the nerve endings. The capillaries take up this infection and new lesions result, until in time the spirochaetae make their way into the spinal cord and brain, and in the vascular system the diseased conditions may cause marked changes and affect the motor and sensory function of the entire central nervous system.

In the case of gonorrhea, which also is due to contact with a specific serum, the gonococcus when deposited on mucous membranes is readily absorbed but unlike syphilis seems to possess a marked affinity for the glands rather than for the vascular or nervous systems. It affects the organs of procreation through an intense inflammation. The physical effects of the two dis-

eases are decidedly different but both impair the general powers and affect relations toward society, for the infected individual can communicate his disease to others and may transmit its terrible effects to his progeny. He may know this may happen but his moral power is weakened, the sex impulses surge beyond the power of inhibition and then the blood taint is passed on to wreck innocent lives.

When syphilis changes from the local form and gets into the circulation, and when gonorrhea gets into the chronic form there may occur a temporary improvement in feeling. In the case of syphilis functional disturbances then begin, there are changes in the walls of the blood vessels, the kidneys may be affected or acute inflammation of the lining membrane of the heart occur. The individual gradually loses ambition. Strength is not up to its former mark, interest is felt no longer in the great problems of spiritual or moral import, and because of disease and loss of morale the victim of syphilis becomes a social menace. Then follows the period in which the final breakdown of the nervous system is completed, the brain and spinal cord are affected and the mind can hold out no longer. Paresis develops and then the State provides for victim's closing years.

The physical changes to the individual following gonorrheal infection have been already discussed but the mental changes which the individual undergoes in the acute stage may be described as being in a less degree similar to those of the victim of syphilis. Economic efficiency is not impaired for work in the office or for other endeavors to earn a living, but there has been an offense against the State by an impairment of power which may ultimately prevent the fulfillment of an obligation to pass on life to a new generation. This is especially true when the infection is passed on to woman for in her it causes an inflammation of different degrees of intensity, but always likely to end in sterility or require an abdominal operation with its resultant organic loss. In the case of woman there seems to be no doubt in the minds of physicians that 45% of childless marriages are due to gonorrhea and 80% of all cases of early blindness in children is due to it.

Human Destiny.

One of the most important findings of the "Royal Commission on Venereal Diseases" is that there is an absolute necessity imposed upon the public to prevent the spread of disease, so that the coming generations may not be unfitted to cope with the problems of human destiny. The greatest purpose of successive generations is to pass on unimpaired the life and conquests of humanity. Individuals may dream of fame and cherish personal ambitions but Nature is concerned more in the future of the race than in the immediate welfare of any individual, and the experience of the ages must enable each generation to adjust itself to environment.

Wisdom is after all experience utilized beneficially, and the progress of the race is dependent upon the ability of each age to appropriate for its own benefit the wisdom which has been acquired by the generations which preceded it. Humanity is a marching army which maintains an average of uniformity although it has many who are lifted above their fellows by genius and ability for command. But there are few supermen for Nature's law is that each generation must average and in the end only such survive as conform to this law.

Each individual is placed on this earth for a special purpose which can only be attained through continuous physical and mental development whereby consciously or unconsciously the mental and social attitude of the individual changes. In this constant readjustment each life seeks or should seek its highest possibility in which education controls the social environment the individual enters at birth—an environment which may be later modified as ambition, energy and experience enlarges ideals.

The Individual and Posterity.

The first duty of humanity therefore is race preservation and however much we may solace our souls by looking backward to what has been accomplished, we serve the race best by looking forward and making possible a capable, efficient and healthy next generation. Although in a marked degree the individual is self-centred, Nature intervenes for the preservation of the race and compels constant sacrifice by the individual in order that humanity

as a whole may be strengthened for its destiny. Even the noblest emotions, those which lift the individual to the highest spiritual plane, are manifestations of Nature's purpose. Thus love, which shapes destiny, is developed that the race may not perish, for the primal law compels the most potent expression of love to be manifested in behalf of children, and to them are returned in full measure the anxiety, tenderness and care which the parents received. Fathers and mothers are forsaken and new homes set up only that a new generation may inherit the earth. Hence we face toward the future where possibilities are and eagerly await the new generation which shall usher in a greater glory, although we know there was power in the ages behind us. Possessed and controlled by race love, we face the coming years with extended arms and a purpose to bestow upon those who shall succeed us all the protection possible in preparation for life's mission.

If this philosophy of humanity is true it leads to the inevitable conclusion that each individual should do all in his power to forward human progress. As all environmental influences which act upon the individual and the community should be conducive to health, happiness and progress, whatever makes for defect, disease and inefficiency should be eliminated in order that the individual and the race may function perfectly.

If the race is to preserve itself, the individual must subordinate impulses, desires and ambitions to conserve racial progress which at best is slow. We may think it rapid, but Nature moves reluctantly in making race changes. This is shown by the fact that in so far as physical perfection is concerned we have made little, if any, advancement since ancient times. Even our endowment of mental power does not surpass that of the thinkers of the past who paved the way for modern achievement for it is the general diffusion of knowledge which makes our age remarkable, the control we have of forces unknown in former times. To judge by such changes the flame of life burns but little more brightly than it has heretofore and unless we do our proper part for its protection we shall pass it on no brighter than we received it.

Protect the Germ Plasm.

It is for this reason that the germ plasm on which the future of the race depends must be protected by the individual and the sinister forces which would impair its potency be destroyed. Love may overlook and conceal defect but it cannot cure impaired germ plasm nor prevent the transmission of the defect it carries. Hence, the necessity that defect and diseases which act upon the sources of life be eliminated.

We must recognize the heritability of certain diseases and realize the fact that the deteriorative action upon the germ plasm of the toxins of such a disease as syphilis is direct, and that it is traceable through the child back to the parents, for it is certain that every syphilitic infant must have had a syphilitic mother, and although the father possibly may not have been infected, doubtless he was, as almost all syphilitic wives are either infected by their husbands or infect them. Here is the law of reaction and here too is evidenced the truth of the Scripture that—

> The sins of the fathers are visited upon
> The children unto the third and fourth generations.

The Moral Responsibility of the Physician.

The United States is now a world power—a leader of the forces of civilization—but its continuance as such will depend upon success in the prevention of the social plagues which attack the sources of national strength—the blood and morals of the people. As posterity is seriously threatened by defect and disease the future must be safe-guarded by their control. Hence general education is necessary if victory over these twin evils is to be assured, and in this the physician should be a leader. You ask what can he do? How can he check the devastation of venereal diseases? Many ways will suggest themselves as experience ripens into wisdom, and among others:

1. The acquirement of an extensive knowledge of human nature through observation and reading; he then can recognize

the causes of immorality, and use that knowledge in warning against social evils and licentious life.

2. As there are many members of the medical profession who are unfamiliar with all the manifestations of the venereal diseases and not conversant with modern methods of diagnosis and treatment, they should make special study of them, and the laws in relation to report of cases be complied with strictly.

3. The adoption of ideals of individual and community duty which will lead to a stand for personal and civic purity, and the exclusion of the immoral from social favor.

4. The advocacy of the custodial segregation of all dangerous persons until the period of possible transmission of venereal disease has ended and by the insistence upon an adequate restraint of the mentally defective of all types that they may not propagate defect.

5. The physician should foster public interest in scientific knowledge and social needs. This can be done by public lectures, illustrations, and statistical information for the benefit of parents and adolescents.

6. Finally, he should be an example both in public and private, in word and deed, knowing that vile language and an attitude of toleration toward impurity may encourage the ignorant to an unclean life. Hence, as an exemplar of social progress the physician should illustrate practically the ideals of life; and as guardian of racial health, a protector of those who are to be born, he should endeavor to let science shine into darkened lives that they may be redeemed from bondage to defect and disease.

VITAL STATISTICS AND CO-OPERATION WITH STATISTICAL OFFICERS.

An Address delivered before the Students of the Albany Medical College on April 13, 1917.

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The subject on which I am to speak has been described as the bookkeeping of the lives of the nation and it has been likened to a lighthouse sending forth its beams and showing the health officer in what direction he should steer his vessel. Dr. Wilbur used to compare vital statistics to Cinderella, describing her as sitting by the fireside sifting the dusty ashes of figures, while her two sisters—bacteriology and preventative medicine—went to the ball and had a good time.

There are two basic elements in vital statistics—one the population and the other the records of deaths and illness, because vital statistics are not only concerned with mortality returns but they are also concerned with morbidity returns, the returns of illness, and incidentally with the returns of births and of marriages. How do we get our population? As you all know, the United States Census takes a population every ten years, and has been doing so since the year 1791. The taking of the census of the population goes back in history as far as the early Egyptians. The Romans, in addition to taking censuses also kept account of the deaths and births that took place within their provinces.

The main feature of the census as taken in those early days was to try and ascertain the fighting strength of the people, and of course in recent years in Continental Europe that has been one of the great requisites in the taking of the census, to discover the number of males at fighting ages. The necessity of frequent censuses has been brought home to us at the present time in our efforts to get together a sufficient fighting force.

The second basic element—the records of illness and the records of death—is obtained by the registration of the certificates of death or the registration of notifications of disease at Municipal, State and indirectly Federal seats of government.

The procedure here in New York State is that the physician furnish the family or the undertaker with a certificate of death within thirty-six hours.

Among the data required are the sex, the age, the civil condition, the birth place of the individual, his occupation, birth places of his parents, and the cause of death, with the idea of coupling up this data with the data as furnished to the census enumerators at the time of visit to each house. The enumerators at the time of the last census collected twenty-one items, the principal ones of which were, the name, sex, age, color, civil condition, birth place, occupation, birth places of the parents, and other data, such as being a civil war veteran, illiteracy, etc.

One of the requisites, I think, of the Health Officer is to understand what is meant by a death rate, and how to calculate one. We have occasion to prepare weekly death rates, monthly death rates, quarterly death rates and yearly death rates. How do we do it? Probably a good many of you are not familiar with the way in which we do it.

Supposing we have a city like New York with 5,500,000 people as a population, and we had last week approximately 1,800 deaths; the sum would be to find out the weekly death rate, to estimate the weekly death rate. Now a weekly death rate means a death rate that would prevail provided the same number of deaths continued weekly throughout the year; the sum would be to multiply the number of deaths, 1,800, by the number of weeks in a year, divide by the population and you have the rate. I think every one interested in health work should be able to do that sum.

Now we say, generally, there are 52 weeks in the year. We are a little more exact than that. We use 52.17747 weeks and multiply your number of deaths in a week by this factor and divide by the population.

The death rate is often spoken of as so many per thousand. The death rate last week was 17.08 per 1,000 of the population. The yearly death rate last year was 13.89 per 1,000 of the population which means that almost fourteen people died out of every 1,000 of the population during the year 1916.

In order to get a monthly death rate, as there are twelve months in the year, multiply the number of deaths that you have in the month by twelve, divide by the number of thousands in your population. In some books it is stated multiply the number of deaths that you have monthly by the number of months in a year,

and then by 1,000 and then divide by your population. I think it is much easier to do it, first, by dividing your population off into thousands, and the sum will be then to multiply your number of deaths in a month by the number of months in a year, and then divide by the number of thousands in a population.

If you have the month of February with twenty-eight days in it, it isn't fair to compare the mortality occurring in it with that of the month of October with thirty-one days in it. In order to be exact, we do not multiply it by twelve, we multiply by a number dependent upon the number of days in a month. So if you had the month of February, in which there are twenty-eight days (365.2427 days in a year) your multiplier would be the figure resulting from dividing twenty-eight into 365 and its decimal part.

The quarterly death rate is obtained in a similar manner by multiplying the number of deaths in a quarter by the number of quarters in a year.

To estimate the yearly death rate, simply divide the number of deaths by the number of thousands in your population.

So that the calculation of a death rate is not an extremely hard proposition for any one who knows how to do multiplication and division.

It is the general crude death rate of which I am speaking, and it means the death rate which is obtained by taking all your deaths, irrespective of the ages at which the deaths occur.

I want to warn you about comparing the crude death rate of a community with that of another community unless there is a proper revision made with regard to the sex, age, etc.

The death rate in the City of New York last year was approximately 14 per 1,000. Some of our Western cities have a death rate of 9, 10, 11 or 12 per 1,000. Some of our Western cities have gone ahead with their desire to brag a little and point to the fact that the death rate of 10 per 1,000 last year when compared with the death rate in New York City of 14 per 1,000 shows just how much more salubrious and healthy they are than the city of New York.

The difference is that an ordinary crude death rate is made up of the deaths of all the ages from one minute up to one hundred

years. Of course, if the age groupings of a population are favorable to a low death rate, you will have a low death rate there irrespective of sanitary condition or environment. In the Western cities where they have an influx of people at the ages of 20 to 45 years, at which ages the death rate is exceedingly low, you will of necessity, have an extremely low death rate for that city, although it might be one of the most unclean cities in the country.

The death rate of children under one year of age is approximately 100 out of every 1,000; the next age group from one to five years of age at which approximately 28 out of every 1,000 die; the next group from 5 to 15 at which the mortality is about 4 per 1,000, and the next age group, say from 15 to 25 or thereabouts at which the mortality is about 5 per 1,000; and then go on up the scale, and you have got to go past 45 years of age before you get a death rate that will approximate 14 per 1,000. You can readily see that where you have a population at an age anywhere above ten years up to 45, you will generally have a very low death rate in that city.

I had occasion quite recently at a meeting of the Directors of the Bureaus to call attention to the death rates of the different boroughs. The death rate of the Borough of Richmond was away above the death rates of the other boroughs. Now Richmond is a salubrious place to live in. Why is it that it had such a high death rate last year as 17 per 1,000? The death rate in Manhattan was 13.60; Brooklyn was a shade over 14.04; Queens was 15.14, and Bronx 13.33.

If you take the age grouping of the Borough of Richmond, and make proper provision for that age grouping, you will find that the death rate for the Borough of Richmond was brought down nearly two points. In other words, the two point increase in the death rate in the Borough of Richmond was due to an unfavorable age grouping of the population. In Queens, the rate was lowered to 13.60 by revision for age grouping. In both these boroughs, as compared with the other boroughs, there is a higher percentage of persons living over the age of 65 years, at which ages the death rate is very high. Even when the rate was corrected for age grouping, Richmond still showed a rate above the other boroughs. There are certain other corrections that can be

made in addition to making the correction for the unfavorable age distribution of the population. Thus, corrections can be made for the presence of institutions. In the Borough of Richmond are two institutions which are fed chiefly from outside the city of New York. One is Sailors' Snug Harbor, in which the inmates come chiefly from up New England; some, I suppose, from Jersey or thereabouts,—people who do not belong to the city of New York, but whose deaths must be included because they take place within the city limits. We can make correction for this factor for the Borough of Richmond by excluding the deaths of non-residents and the population in the institutions, provided we include deaths of residents of Richmond that take place in institutions outside of the borough. The presence of the Marine Hospital whose inmates come from U. S. merchant and naval vessels and which is managed by the Public Health Service, tends to increase the death rate of Richmond. The exclusion of deaths in the hospital and in Sailors' Snug Harbor from the mortality returns in the Borough of Richmond gave that Borough a death rate lower than that of the other Boroughs of the city with the exception of the Borough of The Bronx.

I am talking to you in this strain in order to try to prevent you from falling into the common error of measuring the salubrity of one city with that of another by the ordinary, crude death rate. Before such comparison should be made there should be proper correction made for the age distribution, and also for the presence of institutions. Sex distribution is an important factor in exceptional instances, because at all ages the mortality among the females is decidedly lower than that among the males.

What we used to call years ago the infant mortality was the mortality of children under five years of age, but within recent years the term infant mortality has been seized upon by the advocates of Child Hygiene as representing the mortality of children under one year of age. The mortality of either one of those is really a much better way of comparing the sanitary conditions of one city with another than by using the crude rate.

I want to impress upon you the necessity in using an infant death rate based upon every 1,000 births that take place in the city. This has been done for a great many years over in Conti-

nental Europe and Great Britain. Instead of basing it upon the number of children living at that age, it is based upon the number of births that take place during the year.

In the City of New York last year we had reported 137,644 births and 12,818 deaths under one year of age, what is the rate? Divide the number of deaths by the number of thousands in the number of births reported and you get your infant mortality rate. The infant mortality rate is the rate based upon every 1,000 births in the community, and it is obtained by dividing the number of thousands in the number of births reported into the number of deaths under one year of age.

It is sometimes necessary in order to get figures that are grasped by the ordinary lay mind not to base your rate upon every thousand of the population but to base it on 10,000 or 100,000 or 1,000,000 of the population.

For instance, if you had a population of a city like New York with 5,000,000 plus, and you had 300 deaths from typhoid fever reported during the entire year, you would have to express the typhoid death rate in decimals, if based upon a thousand of the population. This is very easily remedied by, instead of dividing your population into thousands, divide it into tens, hundreds or thousands of thousands.

Now another thing that a Health Officer ought to know something about is how to estimate his population for the postcensal years; sometimes it is necessary to estimate it for the years between the census. Supposing we take the City of Baltimore, Md., for instance, the population in 1900 was 500,000; when the population was enumerated in 1910, it was found that it increased to 560,000. What was the population in 1911. The number of years between the 1900 and 1910 census are ten. The increase in the population 60,000 in ten years or 6,000 in one year. Now if the population in 1910 was 560,000, the estimated population in 1911 would be 566,000 and in 1912 it would be 6,000 additional and so on. This is called the arithmetical method of estimating the population. It is the method that has been used by the Bureau of Census at Washington and used by a great many cities for a number of years. There is another method which is called the geometrical method. The arithmetical method is simi-

lar to a sum in simple interest; the geometrical method is similar to a sum in compound interest. The City of New York used the geometrical method for a great many years, for over 30 years, because it was found that in a city situated like New York not only with its natural increase—that is the excess of the births over the deaths—but also with the constant influx of immigrants from the other side and of persons from all over this country who seek Dame Fortune in this city, the increase was of a compound nature; the results as checked off by each census return as it would come along at the end of ten years, would show that the geometrical method of estimating the population was much nearer the truth than the arithmetical method. Of course these estimates of the population are more or less open to criticism, but the estimates are the best that can be done in any city, except in those where there is a supervision made of every one who comes into or goes out of a city.

In a city like New York where there is no register of the population kept, some means must be taken in order to estimate the population, and the means taken is to estimate the population based on the assumption that the increase that took place between the two last censuses will increase in that same ratio until the next census. It is the best assumption that can be made.

So that with your population and with your deaths you have the means of estimating your death rates.

Now, a few words as to the birth rates.

A birth rate is calculated just the same as a death rate, no difference whatsoever. Where you are estimating the weekly birth rate, or a monthly or a quarterly or a yearly, the procedure is just the same as the death rate, calculated in the same manner, but there is this difference that in the estimating of a birth rate we have certain refinements, so to speak, which are more exact than the ordinary crude method of determining the birth rate. It is much more accurate to estimate a birth rate on the number of women living between child-bearing ages, 15 to 45 say. That is a much better way of comparing the birth rate of one community with another, because you can readily understand that if you compare the crude birth rate of a populace city like New York with the birth rate of a large mining town out West, in

which there are comparatively few females living at the ages of 15 to 45, the comparison would be worthless.

The Census authorities will always provide you with those figures for the Census year, and it is very easy to estimate the number of women living at ages 15 to 45 during the postcensal years.

A still further refinement in the calculation of a birth rate is by estimating the number of legitimate births per 1,000 married women living at 15 to 45, and the number of illegitimate births per 1,000 unmarried women living at 15 to 45.

In New York City here the last refinement we do not use, because the figures are very small as compared with some of the foreign countries. So that for ordinary purposes the estimate of the birth rate of the City of New York is based upon the total number of births recorded per 1,000 women between 15 and 45.

I always say something in talking about births and discussing the registration of births and that is the uses to which the registration of births is put. One, the scientific one of basing the number of deaths under one year of age upon every 1,000 births, and the other the commercial one. It is really surprising to what extent the commercial use of birth certificates has gone.

The number of searches made last year in the City of New York approximated 190,000. The greater portion of these searches were of the birth records for entrance into school, for obtaining employment certificates, for use in our courts in cases of rape—as there is no better evidence as to the age of a female than the borth record, for use in the probation of wills. One of the recent uses to which birth records have been put has been the obtaining of passports.

In delivering a lecture on this subject I at its conclusion appeal to you to give the public health officials your best support, and the most effective way to do this is to obey the laws as to the filing of certificates of birth and death and the reports of infectious diseases. It has come to my attention that the Public Health Law has been amended recently so that civil actions may be begun against physicians who fail to observe the laws bearing on the registration of births, deaths and infectious diseases. Consider well before you incur the penalty provided for failure to obey the law.

Correspondence

SOME PERSONAL INCIDENTS.

By T. D. CROTHERS, M. D.,

Hartford, Ct.

In a letter from Dr. Brantwaite who is division surgeon on the British lines in Flanders, he relates an incident which I think will be interesting to many readers.

It seems that a Red Cross unit of Americans was working at one point on the line when an emergency occurred in a receiving hospital back from the trenches. There were no surgeons to attend to the sudden influx of wounded. A Red Cross surgeon was sent over to the hospital. He proved to be so efficient that work which had formerly required two or more men was done in a very few hours. The surgeon was greatly pleased and asked the Red Cross doctor to remain. In a day or so another rush of wounded men was handled with the same despatch and cleverness and sent to the rear in less time than that of an adjacent hospital. Then came a complaint from some subordinate officers that the Yankee surgeon was doing things differently from what they had been accustomed; that he was using all sorts of knives and neglecting a great many things they had been accustomed to use. The regular service is hedged in with very exact duties concerning details of operations, bandaging and preparing for transportation to the rear and any violation of these rules is looked upon with disfavor by the ordinary Briton. Soon an occasion occurred and the surgeon went over to observe for himself. He writes that he was astonished at the skill, swiftness and genius of this Yankee surgeon. He performed operations almost instantly, using anything that was available. He directed the dressings in an equally adept manner. He made diagnosis quickly and seemed to operate at once without question. There was something in his manner that carried conviction and while the attendants carried out his instructions, somehow it was very different from their custom. The surgeon realized at once that it was work a little better than they had been accustomed to do. Where there had been hesitation and details before an operation, these were avoided, the work was

done and the patient taken off and replaced by another. The clerks were driven to their utmost to make the proper records. The Yankee surgeon was brief in his directions and never replied to a remonstrance, but seemed to go right on independently. The surgeon was curious to know where he came from and a thing he remembered most was, that he was a graduate of the Albany Medical College and lived from some inland town far from the seacoast. He soon went back to the Red Cross service, but the surgeon wrote, "If I could put him into the regular service he would be invaluable." And he said, "I want to keep track of that man for he is going to be a great surgeon in the future."

I have written Dr. Brantwaite, the surgeon, to find out who this man was, for he certainly deserves a recognition.

Along this line another incident will be interesting, especially to the older graduates of the A. M. C. The story is related by Dr. Smith, who died a few years ago in Albany and this was confirmed by Dr. March's own statement, before the class in 1865.

Dr. Alden March was a man of commanding presence, with a piercing black eye, heavy eye-brows and a smooth shaven face, with a quick nervous manner that attracted attention.

Somewhere about 1863 or 1864 after some of the great battles of the wilderness, a request was sent out to many of the leading surgeons of the country, to come to Washington and give their services to the wounded, which had accumulated in great numbers. Dr. March went down, taking with him Mr. Smith, then a student, who subsequently was a physician of some prominence in Albany and very soon he was set to work,—operating in the Army Square Hospital. The doctor was a very original man, bordering on a genius when it came to operations. He was a law to himself, acting independently according to the circumstances. He would say, "This is the way others have done it, but I guess I'll do it this way," (which often times was quite different). With the students in the old city hospital he would stop and explain the reasons for his change of technique. The second day after operating in Washington was marked by the appearance of an army surgeon, who held a high rank and was supervising the work done. He was a Troy man and had heard Dr. March's lectures and knew him very well. For some reason

unexplainable he criticized the doctor as not doing the work according to custom or rule. The doctor replied with a flashing eye that he made the rules and that he was better able to judge than anybody what should be done. This surgeon complained to a medical authority higher up, that Dr. March of Albany was performing operations along ancient lines and far from the modern teachings. In thinking the matter over Dr. March became very angry and he went over to headquarters and announced that he was going home. He said among other things, that he didn't want to be irritated by the criticism of men who didn't know anything. The surgeon chief told him to go back and go to work and that no one should dictate to him and that he was authority and they would recognize it. The doctor consented.

It so happened that a number of very important operations had to be performed after dark and the Troy surgeon, either designedly or by accident, neglected to provide other than two or three small kerosene lamps. The doctor seemingly assumed that this was a slight on him to complicate his work and he ordered the lamps thrown out and he ordered the attendants to buy some candles and put them around. Afterwards the doctor said in the classroom, that he showed the authorities down there, that a surgeon could operate by a tallow candle, if he knew his business and didn't require a foul smelling lamp with the danger of explosion.

The incident evidently closed here and the doctor received a very warm letter of thanks from medical authorities. Years after the surgeon was in practice in Troy and never failed to refer to Dr. March as antiquated and behind the times. Of course such criticisms were sure to reach Dr. March although he never talked back or criticized him, he showed great interest to treat cases from Troy and persons who had been under this surgeon's care. The army surgeon realized later that he had antagonized a very dangerous man who would come up to Troy and perform an operation either with or without remuneration and made no reference to him whatever.

Years afterwards this surgeon's son was severely injured in a railroad accident and Dr. March was appealed to to help him.

In all probability they met and the case required some consultation which covered some little time. Finally recovery followed and the army surgeon sent Dr. March a check with profuse thanks. This the doctor returned, with a simple statement, that as an antiquated surgeon, he would never accept fees from one who had doubted his ability in the past.

This throws a side light on a character who taught surgery in Albany, built up the medical college and was himself, a commanding figure, far above the average.

In 1866 I saw Dr. Alden March and Gen. Winfield Scott on a Hudson river steamer. The resemblance between the two men was very striking. Dr. March was a bigger and kindlier man, but both had the same keen black eye, shaggy eye-brows and positive dogmatic air—not offensive but simply commanding and impressive. Both were really great men in their day.

Editorial

Besides bathing in the rivers, lakes, tanks and fountains, they used a bath which is still to be seen in many Indian villages, and which they call the temezcalli. It is made of unbaked bricks; its form is that of a baker's oven, about eight feet wide and six high; the pavement rather convex, and lower than the surface of the soil. A person can enter this bath only on his knees. Opposite the entry is a stone or brick stove, its opening towards the exterior of the bath, with a hole to let out the smoke. Before the bath is prepared, the floor inside is covered with a mat, on which is placed a jar of water, some herbs and leaves of corn. The stove is then heated until the stones which unite it with the bath become red hot. When the bather enters the entry is closed, and the only opening left is a hole at the top of the vault, which, when the smoke of the oven has passed through, is also shut. They then pour water upon the red-hot stones, from which a thick vapour arises, which fills the temezcalli. The bather then throws himself on the mat, and drawing down the straw with the herbs and maize, wets them in the

> tepid water of the jar and if he has any pain, applies them to the part affected. This having produced perspiration, the door is opened and the well-baked patient comes out and dresses. For fevers, for bad colds, for the bite of a poisonous animal, this is said to be a certain cure; also for acute rheumatism.
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> LIFE IN MEXICO. *Madame Calderon De La Barca.*

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"A Soldier-Doctor."

The surgical and medical records of the War of the Rebellion bears ample testimony to the activities of graduates of the Albany Medical College. Twenty classes only had graduated before the outbreak of the war, and the young physicians responded with enthusiasm to the call of patriotism and of duty. In the memorabilia of the Alumni Association are presented the personal achievements, and the individual service on the field and in the army hospital, history creditable alike to its makers and to their *Alma Mater*. Two only of our graduates chose army service as the sphere of professional activity: Colonel John Van Rensselaer Hoff, retired, now in Washington; and the late Colonel James P. Kimball. Dr. Hoff graduated with the class of 1871 and has since risen through the grades of promotion, having made an enviable record in the Spanish-American War. Dr. Kimball was the only alumnus of the college entering the volunteer service to accept a permanent commission in the army. He was anxious, as a young man, to obtain the experience, and hastened his undergraduate work to that end. He was mustered out in July, 1865, and began general medical practice at Pompey, N. Y. This proved distasteful, and in 1867 he received his commission as assistant surgeon with rank of first lieutenant. He then entered upon a career of great activity and usefulness.

Under the title, "A Soldier-Doctor of our Army,"* Mrs. Maria Brace Kimball has presented a touching outline of the character and experiences of her lamented husband, which will be received

**A Soldier-Doctor of our Army: James P. Kimball,* late Colonel and Assistant Surgeon-General, U. S. Army. By MARIA BRACE KIMBALL. With an introduction by Major-General WILLIAM C. GORGAS, Surgeon-General, U. S. Army. And with illustrations. Boston and New York: Houghton-Mifflin Company. The Riverside Press, Cambridge, 1917.

with gratitude by the friends who still recall the pleasant companionship, and by others who may find here an unusual description of the West and Southwest of the United States during these few years of struggle with the aborigines in their endeavor to withstand the final decree of civilization.

Dr. Kimball was detailed to Fort Buford, Dakota, in 1867, for which destination, after an experience with freshets on the Missouri river, the young surgeon engaged upon a stage journey of one hundred miles. "The windings of the Missouri presented every variety of scenery: the bleak and barren Black Hills and Big Horn Mountains—known then only to the Indians —the dry sagebush-covered plains and occasional rich river bottoms * * * glimpses of savage Indians along the shores, of antelopes and herds of buffalo on the hills." Fort Buford was a wooden stockade, enclosing adobe structures, possessing a corral for cattle which was the "envy of the hungry and thievish Indians, and kept the garrison under arms." In spite of the raids and skirmishes, Dr. Kimball was touched with pity for the foes who had deteriorated under the influence of "rum, gin, brandy and the other comforts of life" introduced by the "benevolent inhabitants of the East." War parties hovered about and Sitting Bull announced the impending destruction of Fort Buford "from the face of the earth."

Truly picturesque are the descriptions of the terrain and narrative of experiences in this wild region given in Dr. Kimball's correspondence and Mrs. Kimball's sympathetic comment, opening again a living record of this romantic period of our country's history. In the less rigorous climate of Arizona Dr. Kimball spent the years from 1870 to 1873, taking part in the Yellowstone Expedition under General Custer to survey the route of the Northern Pacific Railroad and to select sites for new army posts. In a furious attack by the Sioux Dr. Kimball improvised a stretcher for the transportation of wounded from the field, and this was probably the origin of the litter which, with the aid of Frederic Remington he perfected later during the Spanish-American War. Dr. Kimball described in the ANNALS of June, 1898, this device which established the principle upon which the more complicated field ambulances of the present day are con-

structed. "Add to this litter on wheels a motor and a canvas top, and you have the field ambulance used to-day upon all battle fields of Europe."

Later, in 1875 and 1876, Dr. Kimball was again associated with General Custer in expeditions in Dakota, and escaped the massacre at Big Horn only by the chance of delay caused by a great blizzard. Otherwise he would have shared the fate of his two assistant surgeons who accompanied General Custer into that fatal ambuscade of Sitting Bull. He was one of the rescuing party who drove the Utes from the "Thornburgh Massacre" in Colorado, in 1879, and afterward described that wild ride over plains and hills, and the care of the wounded "at the expense of the nap which I had promised myself while reeling in the saddle from sleep." Dr. Kimball's service in the West included also stations in Nebraska, Texas and New Mexico, with expeditions which carried him over this vast tract of country before its cultivation, and keen are his comments upon the primitive peoples and their customs and characteristics — conditions which have disappeared with unprecedented rapidity, and remain now only as an incident in the marvellous march of civilization.

Of his service in the East, at West Point and Governors Island, there is little that is new, but much of interest to readers not acquainted with the activities of these nuclei of military administration. Mrs. Kimball's tribute is worthy of the man of the fine sensibilities and high character recognized by his friends. In the words of Surgeon-General Gorgas, "it is a human document worthy of record and remembrance."

Public Health

Edited by Arthur Sautter, M. D.

Department of Public Safety, Bureau of Health, Albany, N. Y.

Abstracts of Vital Statistics, July, 1917.

Compiled by William F. Fullgraff, Registrar.

	Deaths.
Consumption	17
Typhoid Fever	1
Scarlet Fever	0

Measles	3
Whooping cough	1
Diptheria and croup	0
Grippe	0
Diarrheal diseases	11
Pneumonia	8
Broncho pneumonia	1
Bright's Disease	6
Apoplexy	13
Cancer	10
Accidents and violence	11
Deaths under one year	27
Deaths over seventy years	30
Death rate	16.91
Death rate less non-residents	14.66

Deaths in Institutions.

	Non-res.	Res.
Albany Hospital	11	16
Albany Hospital Camp	2	6
Homeopathic Hospital	4	3
St. Peter's Hospital	1	7
Albany County Penitentiary	1	0
Albany County Hospital	2	2
Old Ladies Home	0	1
Hospital for Incurables	0	1
St. Margarets House	1	0
Home for the Aged	1	3
Maternity Hospital	0	5
Public Places	1	2
Totals	24	46
Births	195	
Still births	14	

BUREAU OF COMMUNICABLE DISEASES.

Cases Reported.

Typhoid fever	10
Scarlet fever	15
Diphtheria and croup	2
Chickenpox	8
Smallpox	0
Measles	68
German measles	20
Whooping-cough	19

Tuberculosis	12
Anterior poliomyelitis	1
Mumps	1
Septic sore throat	1
Total	157

Number of days quarantine for scarlet fever:
Longest..... 36 Shortest..... 30 Average..... 31 5/14
Number of days quarantine for diphtheria:
Longest..... 16 Shortest..... 16 Average..... 16
Fumigations:

Houses	35	Rooms	203
Milk bottles disinfected			149

TUBERCULOSIS.

Living cases on record July 1, 1917		760
Cases reported:		
By card	25	
Dead cases by certificate	6	31
		791
Dead cases previously reported	11	
Dead cases not previously reported	6	17
Living cases on record August 1, 1917		774
Total tuberculosis death certificates		17
Non-resident deaths:		
Albany Hospital Camp	2	2
Resident deaths		15

Visits to Cases of Communicable Disease.

Tuberculosis	3
Miscellaneous	40
Visits to physicians	3

BENDER LABORATORY REPORT.

Diphtheria.

Initial positive	2
Initial negative	140
Release positive	2
Release negative	7
No growth	6
Total	157

Sputum for Tuberculosis.

Positive	35
Negative	66
Total	101

Widals.

Positive	7
Negative	30
Suspicious	3
Unsatisfactory	3
Total	43
Milk analyses	148
Pathological examinations	1
Bacteriological examinations	1

Bureau of Nuisances.

Complaints made	84
Inspections	93
Plumbing	51
Sanitary	42
Reinspections	103
Plumbing	59
Sanitary	44

Hearings.

Cases heard before health officer	3

Class of Cases.

Drain	1
Ventilation	1
Hopper closet	1

Disposition of Cases.

Abated	2
Reinspection	1

Bureau of Plumbing, Drainage and Ventilation.

Inspections	114
Old houses	44
New houses	70
Permits issued	70
Plumbing	55
Building	15
Plans submitted	20
Old buildings	7

New Buildings	13
Houses tested	28
Blue or red	9
Water test	19
Houses examined	30
Re-examined	112
Valid	17
Without cause	13

DEAD ANIMAL REPORT.

Horses removed	22
Dogs removed	146
Cats removed	414
Total	582

BUREAU OF MARKETS AND MILK.

Public market inspections	24
Lactometer readings	140
Temperature readings	140
Fat tests	79
Sediment tests	35
Chemical tests	42
Bacterial counts	79
Stores inspected	62
Milk depots inspected	11
Cans inspected	815
Complaints investigated	2

MISCELLANEOUS.

Cards posted for communicable disease	86
Cards removed	60
Notices served on schools	167
Notices served on stores and factories	49
Postal card returns sent to doctors	86
Postal card returns received from doctors	60
Inspections and reinspections	115
Employment certificates issued to children	65
Vaccinations	18
Cases assigned to health physicians	43
Calls made	74
Signs furnished to licensed plumbers	1
Garbage collected from first district (bbls.)	265
Garbage collected from second district (bbls.)	255
Garbage collected from third district (bbls.)	357

Medical News

Medical Reserve Corps.—The Surgeon General's Office, at Washington, has appealed to the medical press of this country to aid in securing the necessary quota of physicians for the great army now in course of organization.

Major Noble states that the department must depend upon the medical press for assistance, and at the last meeting of the American Medical Editors' Association, held in New York, the following resolution was presented, and unanimously passed:

Whereas, The need of Medical Reserve Officers for both the Army and Navy is the paramount question of the day, therefore be it

Resolved, That (1) the members of this Association pledge themselves to publish prominently at least three times within the ensuing three months, a copy of the official personal application blank with an explanatory comment on the proper procedure to be employed in transmitting the same to the Surgeon General's office.

(2) That all medical journals of this country be urged to present editorially the needs of the military services in this crisis and the immediate necessity for securing the full complement of medical officers for the same.

(3) That this committee be continued in office after this meeting and be empowered to expend for carrying out the provisions of this resolution a sum not to exceed two hundred and fifty dollars.

(4) That a copy of these resolutions be forwarded to the Surgeon Generals of the Army and Navy and that the Association of American Medical Editors in convention assembled herewith pledges its hearty and unstinted support of all measures designed for the development of the medical forces in this hour of need.

Seale Harris, M. D.,
Secretary Southern Medical Society; Editor of the Southern Medical Journal.

T. L. Stedman, M. D., New York,
Editor of the Medical Record.

H. E. Lewis, M. D., New York,
Editor American Medicine.

D. S. Fairchild, Clinton, Iowa,
Editor Iowa State Journal Medicine.

G. W. Kosmak, M. D., New York,
President American Medical Editors' Association; Co-Editor American Journal Obstetrics.

Robert M. Green, M. D., Boston,
Editor Boston Medical and Surgical Journal.

J. MacDonald, Jr., M. D.,
Secretary American Medical Editors' Association; Managing Editor American Journal of Surgery.

Much enthusiasm was manifested at this meeting, and great dependence is placed upon every medical journal in the United States to aid in the most effective manner possible.

The requirements for appointment in the Medical Reserve Corps are herewith presented, for the information of applicants:

Application for Appointment in the Medical Reserve Corps, U. S. Army.

....., 191 .

To the *Surgeon General*, U. S. Army,
Washington, D. C.

Sir:

I hereby make application to be examined for appointment in the Medical Reserve Corps, U. S. Army, and inclose testimonials as to my character and habits.*

I certify that to the best of my knowledge and belief I am laboring under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required of me if appointed in the Medical Reserve Corps, U. S. Army, and that the answers given to the interrogatories below are true and correct in every respect.

I furthermore state my willingness to proceed to such point for examination as may be designated by the Surgeon General, with the understanding that the journey entailed thereby must be made at my own expense.

Interrogatories.

1. What is your name in full (including your full middle name)?
2. What was the date of your birth?
3. Where were you born? (Give State and city or county; if foreign born, give country.)
4. When and where were you naturalized? (For applicants of alien birth only.)
5. Are you married or single?
6. Have you any minor children; if so, how many?
7. What is your height, in inches?
8. Your weight, in pounds?
9. Give the nature and dates of all serious sicknesses and injuries which you have suffered.

*Testimonials as to character and habits from at least two reputable persons must accompany this application. Political recommendations are not necessary.

10. If either parent or brother or sister has died, state cause and age in each case.
11. Do you use intoxicating liquors or narcotics; if so, to what extent?
12. Have you found your health or habits to interfere with your success in civil life?
13. What academy, high school, college, or university have you attended? State periods of attendance from year to year, and whether you were graduated, giving date or dates of graduation.
14. Name any other educational advantages you have had, such as private tuition, foreign travel, etc.
15. Give all literary or scientific degrees you have taken; if any, names of institutions granting them, and dates.
16. With what ancient or modern languages or branches of science are you acquainted?
17. How many courses of lectures have you attended? Names of colleges and dates.
18. When and where were you graduated in medicine?
19. Have you been before a State examining board? If so, state when, where, and with what result.*

First. This application after being filled out, must be sworn to before a Notary Public.

Second. It must be accompanied by a County Clerk's certificate certifying to the fact that the applicant is a licensed practitioner.

Third. Two letters from citizens testifying to the character of the applicant must accompany the application.

20. Are you a member of any State medical society? If so, give its name.
21. Have you had service in a hospital? If so, state where and in what capacity, giving inclusive dates of each kind of service.
22. What clinical experience have you had in dispensary or private practice?
23. Have you paid particular attention to any specialty in medicine; if so, what branch?
24. What opportunities for instruction or practice in operative surgery have you had?
25. Have you previously been an applicant for entry into the United States service? If so, state when, where, and with what result (if rejected, state why).
26. Are you a member of the organized militia? If so, state with what organization and in what capacity.
27. Have you been in the military or naval service of the United States as cadet or otherwise? If so, give inclusive dates of service with each organization, designating it.

*This application must be accompanied by a certificate from the proper official that the applicant is duly registered to practice medicine in the State in which he resides.

28. What occupation, if any, have you followed other than that of student or practitioner?
29. What is your present post-office address?
30. What is your permanent residence?
31. (Signature of applicant) .....
32. The correctness of all the statements made above was subscribed and sworn to by the applicant before me this ..... day of ....., 191 .

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As matter for editorial comment, here is the situation.

We must raise 20,000 physicians, and the members of the American Medical Editors' Association feel they are going to do their share.

At the present time there are less than 500 physicians in the regular Medical Army Corps, about 2,500 in the Medical Reserve Corps, and about 800 in the Militia, or a total of about 3,800 physicians when we must have 20,000.

Commissions are accorded in the Medical Reserve Corps on the basis of the First Lieutenant, Captain and Major, with respective pay of $2,000, $2,400 and $3,000 a year. No physician is commissioned lower than a First Lieutenant.

At this time of our great National crisis, will you aid the Surgeon General's Office in securing the number of physicians required? And please emphasize the fact that when these applications have been made out in accordance with the above instructions, they should be sent to the nearest Chairman of the Examining Boards, when appointment will be made for the applicant to appear for examination.

New York—Albany—Major Henry L. K. Shaw, M. R. C., 361 State street.

Medical Service of the Army and Navy.—Dr. Robert Reid, Jr. (A. M. C. '14), formerly an assistant physician at the Hudson River State Hospital at Poughkeepsie and also at the Riverdale Sanitarium, West Hill, New York City, has been appointed first lieutenant in the Medical Reserve Corps, and will probably be connected with the psychiatrical unit.

—Dr. Emanuel M. Freund (A. M. C. '16), has been commissioned first lieutenant in the Medical Reserve Corps, and has been ordered for training to Fort Benjamin Harrison, Indiana.

—Dr. Abraham M. Rabiner (A. M. C. '16), who has just completed a service as interne in the Albany Hospital, has been commissioned as first lieutenant in the Medical Reserve Corps.

—Dr. Frank N. Neuendorf (A. M. C. '11), has been commissioned as lieutenant in the Medical Reserve Corps and ordered for training to Fort Benjamin Harrison, Indiana. Dr. Neuendorf at the time of enlistment is president of the Medical Society of the County of Fulton and health officer of the City of Johnstown.

—Dr. Chester B. Van Gaasbeck (A. M. C. '17) and Dr. Burchard A. Winne (A. M. C. '17), have entered the medical service of the United States Navy.

Dr. Paul T. Harper, Clinical Profesor of Obstetrics, Albany Medical College, has received commission as first lieutenant in the Medical Reserve Corps of the United States Army.

Dr. Frederick W. Loughran (A. M. C. 90), present medical examiner for the State Industrial Commission, has been commissioned major in the Medical Reserve Corps of the United States Army.

Dr. William J. Wansboro (A. M. C. '95), of Albany, N. Y., has been commissioned as first lieutenant in the medical service of the United States Army.

Dr. John Giffen (A. M. C. '97), of Albany, N. Y., has been commissioned as first lieutenant in the medical service of the United States Army.

Dr. Clarence L. Sicard (A. M. C. '01), Poughkeepsie, N. Y., has been commissioned as first lieutenant in the medical service of the United States Army.

Dr. Michael J. Thornton (A. M . C. '01), formerly Assistant Superintendent of Bellevue Hospital, New York City, has been commissioned as captain and assistant surgeon in the Medical Corps of the United States Army.

Dr. George W. Papen, Jr. (A. M. C. '05), of Albany, N. Y., who has been in service with the Tenth Infantry, New York National Guard, with rank of captain, has been transferred to the Federal service.

Dr. Theobald F. Doescher (A. M. C. '06), of Albany, N. Y., has been commissioned lieutenant in the Medical Reserve Corps of the United States Army.

Dr. George W. Beebe (A. M. C. '07), of Johnstown, N. Y., has been commissioned as first lieutenant in the medical service of the United States Army.

Dr. Patrick J. Hirst (A. M. C. '10), of Ballston Spa, N. Y., has been commissioned as first lieutenant in the Medical Reserve Corps of the United States Army.

Dr. Charles E. Maxwell (A. M. C.' 11), has ben commissioned in the Medical Reserve Corps of the United States Army, and has relinquished his practice at Portlandville, N. Y.

Dr. Ira C. Whitehead, Jr. (A. M. C. '12), of Hoosick, N. Y., has received his commission as first lieutenant in the Medical Reserve Corps of the United States Army.

Dr. Garrett M. Clowe (A. M. C. '13), Schenectady, N. Y., has been commissioned as first lieutenant in the medical service of the United States Army.

Dr. Stephen H. Curtiss (A. M. C. '15), recently interne in the Samaritan Hospital of Troy, N. Y., has been accepted for service in the army, and assigned to military work in the laboratory of the Rockefeller Foundation.

Dr. Lawrence J. Early (A. M. C. '15), assistant on the staff of the Bender Hygienic Laboratory, has been commissioned lieutenant in the medical service of the United States Army and ordered for instruction to Fort Riley, Kansas.

Dr. John E. Heslin (A. M. C. '15), who has just completed service as interne in the Albany Hospital, has been commissioned lieutenant in the medical service of the United States Army, and has been ordered for instruction to Fort Riley, Kansas.

Dr. Harold A. Peck (A. M. C. '16), of Albany, N. Y., has been commissioned as first lieutenant in the medical service of the United States Army.

Dr. Abraham M. Rabiner (A. M. C. '16), who has just completed a service as interne in the Albany Hospital, has been commissioned as first lieutenant in the Medical Reserve Corps, and has been ordered for duty to the instruction camp at Fort Benjamin Harrison, Indiana.

Dr. Arthur W. Elting, director of the Albany Base Hospital Unit, nas announced the following appointments to the service of this hospital unit:

Registrar, Worthington Palmer, Albany; surgical division, Dr. Charles G. McMullen, Schenectady; Dr. J. Lewi Donhauser, Dr. Willard J. Deno, Dr. Edwin L. Draper, Dr. John F. Southwell, Dr. William P. Howard, Dr. Elting, Albany; Dr. John L. Edwards, Hudson; medical division, Dr. L. Whittington Gorham, Dr. Clinton B. Hawn, Dr. Erastus Corning, Dr. Malcolm Douglas, Albany; Dr. Jonathan Pearson, Schenectady; laboratory division, Dr. Fred M. Meader of the State Health Department, Albany; Dr. R. G. Hussey and Dr. Schmeisser of Baltimore.

Personals.—Dr. San Crombie Po (A. M. C. '93), Bassein, Burma, has been recently appointed a member of the Lieutenant Governor's Council of that country. Dr. Po, who is a native of Burma, has achieved the highest position to which a native can be appointed. He has however held many places of honor prior to this.

—Dr. Stillman S. Ham (A. M. C. '02), has removed from 947 State to 153 Union St., Schenectady, N. Y.

—Dr. Albert S. Ferguson (A. M. C. '17), has begun practice at Portlandville, N. Y., and has taken the practice of Dr. Charles E. Maxwell who has enlisted in the medical service of the army.

Died.—Dr. Thomas H. Chambers (A. M. C. '55), died recently at his home in Georgiana, Fla.

—Dr. Louis C. B. Graveline (A. M. C. '62), died at his home in Nassau, N. Y., July 22, 1917, aged 80. Dr. Graveline was a veteran of the Civil War, for twenty years local surgeon of the Boston and Albany Railroad,

and for five years physician of Columbia county. He resided in Albany for many years, was police surgeon for two years and was one of the founders of the Zouave Cadets.

In Memoriam

George W. Holding, M. D.

Dr. George W. Holding, of Breakabeen, N. Y., died at Troy, N. Y. July 27, 1917. Dr. Holding was born in Brooklyn, N. Y., in 1856. He received his preliminary education in Brooklyn and Saratoga. As a schoolboy, he and his brothers showed marked musical ability and they traveled over the entire United States as a musical organization. Although he always loved his music, he decided to take up medicine as his profession and matriculated in the Albany Medical College, and graduated in the Class of 1884.

After serving his interneship at the Chambers Street Hospital, New York City, he opened an office in Watervliet, N. Y., where he practiced for over twenty years, later removing to Breakabeen, N. Y.

He married Carrie E. Barrows of Saratoga, N. Y. and they had two children: a son, Paul E., and a daughter, Miss Carolyn Holding, of New York City, who alone survives them.

W. N. Fleetwood, M. D.

Dr. W. N. Fleetwood, a graduate of the Albany Medical College in the class of 1858, died at his home in Cochran, Fla., on May 4, 1917, aged 77 years.

Dr. Fleetwood was born on February 9, 1840, and thus it appeared he was only eighteen years of age when he received his diploma. For many years there has been no response from Dr. Fleetwood to inquiries from his Alma Mater, and his records have not been published in the decennial class histories. In response to an inquiry from the Annals Mrs. W. N. Fleetwood, Sr., widow, writes that Dr. Fleetwood remained in Albany after graduation with one of the professors, after going to Georgia, where he remained for a long time. Some disease, the nature of which is not given, resulted in his retirement from active practice for rest and recuperation. His health was restored, and he afterward engaged in business in a large and prosperous cotton warehouse, in which he was active from fifteen to eighteen years. Ill health again caused his retirement. He married twice and had three sons. He was a prominent Mason.

Current Medical Literature

NEW YORK STATE MEDICAL LIBRARY

Edited by Frances K. Ray.

The Medical Library is glad to announce that it will be open until ten o'clock every evening during the college year, beginning September 24, 1917. Credit for the appropriation which makes this possible is due largely to the efforts of certain members of the Advisory Council who have shown a helpful interest in many ways during the past year.

The annual report for the year 1916-1917 shows that 7,153 readers have used the room and over 3,300 volumes have been circulated outside the library. Two hundred and four new borrowers have been added to the list.

The library contains 21,810 bound volumes, with probably as many unbound periodicals and pamphlets which have not been counted. In common with all libraries we have suffered the complete loss of current German literature, though French and English magazines have been received with fair regularity.

Special effort has been made to co-operate in military preparedness not only by the acquisition of helpful books, but by the compilation of bibliographies on all related topics which have enabled the library to meet promptly many calls from men preparing for active service.

Students of the Albany Medical College have received instruction in the use of library tools from the Medical Librarian and the Director of the State Library has lectured to the senior class on the relation of libraries to public health.

Recent Accessions.

American therapeutic association. Proceedings. 1916.
Bayliss, W. M. Physiology of food and economy in diet. 1917.
Binnie, J. F. Manual of operative surgery. 7th ed. 1916.
Blumgarten, A. S. Materia medica for nurses. 2d ed. 1916.
Bucholz, C. H. Manual of therapeutic exercise and massage. 1917.
Buck, A. H. Growth of medicine from the earliest times to about 1800. 1917.
Cabot, R. C. Case histories in medicine. New ed. 1916.
—— ——. Diseases of metabolism and of blood. 1910.
Carnegie United Kingdom trust. Report on the physical welfare of mothers and children; England & Wales. 2v. 1917.
Carrel, A. & Dehelly, G. Le traitement des plaies infectées. 1917.
Cash, C. Our slaughter-house system, a plea for reform.—1907.
Cole, N. B. First aid for boys. 1917.
Cushny, A. R. Secretion of the urine. 1917. (Monographs on physiology.)
de Normandie, R. L. Case histories in obstetrics. 2d ed. 1917.

Doty, A. H. Manual of instruction in the principles of first aid to the injured. 6th ed. 1916.

Dupuy, G. M. The stretcher bearer. 1915. (Oxford war primers.)

Egbert, Seneca. Hygiene and sanitation. 6th ed. 1916.

Falta, Wilhelm. Ductless glandular diseases: tr. by M. K. Meyers. 2d ed. 1916.

Fishberg, Maurice. Pulmonary tuberculosis. 1916.

Fischer, A. Vorlesungen über Bakterien. 2e. aufl. 1903.

Flint, Austin. Manual of physical diagnosis. 7th ed. rev. by H. C. Thacher. 1917.

Fones, A. C. Mouth hygiene. 1916

Freud, Sigmund. History of the psycho-analytic movement. 1917. (Nervous and mental disease monograph series, no. 25.)

Gardner, M. S. Public health nursing. 1916.

Gowers, W. R. Clinical lectures on diseases of the nervous system. 1895.

Green, C. M. Case histories in diseases of women. 1915.

Groves, E. W. H. Gunshot injuries of bones. 1915. (Oxford war primers.)

Haldane, J. S. Organism and environment as illustrated by the physiology of breathing. 1917. (Silliman memorial lectures, 1915.)

Harris, W. Nerve injuries and shock. 1915. (Oxford war primers.)

Hill and Eckman. Starvation treatment of diabetes. 3d ed. 1917.

Horder, T. Cerebrospinal fever. 1915. (Oxford war primers.)

Hughes, D. E. Practice of medicine. 11th ed. rev. by R. J. Scott. 1917.

Ikonographia dermatologica; ed by Neisser and Jacobi. pt. 1-7, 1906-14.

Lane-Claypon, J. E. Milk and its hygienic relations. 1916.

Lelean, P. S. Sanitation in war. 2d ed. 1917.

Lipschütz, Alexander. Stoffwechsel und Energiewechsel des Menschen. 1914.

McFarland, Joseph. Bacteria and protozoa. 8th ed. 1917.

Marks, A. M. Manual of artificial limbs. 1914.

Monographic medicine. 6v. 1916.

Moore, V. A. Pathology and differential diagnosis of infectious diseases of animals. 1916.

Murphy, J. K. Wounds of the thorax in war. 1915. (Oxford war primers.)

Musser & Kelly. Handbook of practical treatment. v. 4. 1917.

National council of public morals for Great and Greater Britain. The declining birth rate: its causes and effects. 1916.

Nonne, Max. Syphilis and the nervous system. 2d ed. 1916.

Osler, Sir William. Principles and practice of medicine; ed. by Thomas McCrae. 8th ed. 1917.

Pani, A. J. Hygiene in Mexico. 1917.

Parker, H. N. City milk Supply. 1917.

Peeso, F. A. Crown and bridge work. 1916.

Pharmaceutical society of Ireland. Calendar. 1916.
Phillips, W. C. Diseases of the ear, nose and throat. 3d ed. 1916.
Power, D'Arcy. Wounds in war. 1915. (Oxford war primers.)
Prentice, C. F. Ophthalmic lenses and prisms. 1917.
Prinzing, Friedrich. Epidemics resulting from wars. 1916.
Pyle, W. L. Manual of personal hygiene. 6th ed. 1916.
Ramsay, A. M. Injuries of the eyes. 1915. (Oxford war primers.)
Rawling, L. B. Surgery of the head. 1915. (Oxford war primers.)
Rollier, Auguste. La cure de soleil. 1915.
Squire, J. E. Medical hints for the use of medical officers. 1915. (Oxford war primers.)
Straub, P. F. Medical service in campaign. 2d ed. 1912.
Thomas and Ivy. Applied immunology. 2d ed. 1916.
Tibbles, William. Dietetics. 1914.
Toynbee, Gertrude, ed. Reminiscences and letters of Joseph and Arnold Toynbee. n.d.
Umber, F. Lehrbuch der Ernährung und der Stoffwechselkrankheiten. 1909.
U. S. Lighthouse service. Medical handbook. 1915.
Wethered, F. J. Medical microscopy. 1892.
Wadsworth, W. S. Post-mortem examinations. 1916.
Wood, R. C. Soldier's first aid. 1917.

The following new periodicals are received currently:
Abstracts of bateriology.
American journal of syphilis.
Annals of medical history.
Bulletin of University of Maryland school of medicine.
Journal of urology.
Maryland psychiatric quarterly.
Medicine and surgery.
Mental hygiene.
Society of the New York hospital. General bulletin.
Tropical diseases bulletin.
Veterinary review.

Military Medicine

MILITARY INSTRUCTION AND THE "ALBANY IDEA."

(*Continued from July* ANNALS, *p.* 350.)

The admirable work done by the Chemical Club in Albany in military preparedness has been demonstrated by an important pamphlet recently issued. As the scheme is of such far-reaching value, it has been thought wise to reprint it in the ANNALS so that it may receive a larger circula-

tion than the privately distributed pamphlet, and may also have permanent record.

The following named physicians are the members of the Clinical Club who have accomplished this large task: Dr. Arthur J. Bedell, Dr. Frederick C. Conway, Dr. Erastus Corning, Dr. Joseph A. Cox, Dr. Malcolm Douglas, Dr. Eugene E. Hinman, Dr. Ellis Kellert, Dr. Joseph A. Lanahan, Dr. Joseph P. O'Brien, Dr. Daniel V. O'Leary, Dr. James F. Rooney, Dr. Harry Rulison, Dr. James N. Vander Veer.

Clothing.

1. Amounts carried in stock by local dealers.
2. Sources of supply (names and adresses and when possible the capacity of firms or factories from which supply is drawn).

Shirts, trousers, socks, shoes, coats, hats, underwear, pajamas, night shirts, belts, suspenders.

Housing.

Churches are not included in the survey, first, because their spires may draw artillery fire, and secondly, because being pew-filled their floor space is small.

Buildings are classified as follows:

Schools—Public, private, collegiate buildings.
Halls—Theatre, Assembly, Dance, 1st or 2nd floor, elevators.
Clubs—Including fraternities having buildings.
Warehouses—
Mercantile Establishment—Singly or in groups.
Factories—(Movable machinery).
Public Buildings—Federal, State, County, City, except Post Office, Military.
Semi-Public—Charitable, Correctional, Religious.

Inquiry has been made with reference to:

Location:

Lines of railway and other transportation.
Distance from general receiving stations.
Buildings in vicinity for similar purposes.
Open space adjacent or in vicinity.

Physical Properties:

Material of construction, brick, wood, cement, tile, strain limit.
Dimensions—Over all, each floor, each room.
Floor space, absolute, available, maximum, minimum for special needs.

Hygiene:

Ventilation—Method, means, adequate. Improvements possible.
Heating—Method, means, sufficient. Improvements possible.
Lighting—Method, means, proper. Improvements possible.
Fire protection—Exits, doors, towers, walls, sprinklers.
Sanitation—Toilets, wash-rooms, rest-rooms, bath-rooms, lunch-rooms.

Facilities:

Elevators—Passenger, freight, dimensions, location, power, capacity, remodeling.
Availability—Changes necessary, machinery.
Consolidation—*i. e.*, one place serve need of many (asylum).
Opportunity—How quickly available.
Records—Maps, plans, schematic or to scale, photos, elevation and perspective. The list has been compiled from City directory, telephone directory, insurance lists, personal inspection, any other available sources.

For all factories in New York State constructed or improved since 1914, plans are filed in the office of the State Industrial Commission. For all buildings under construction since plans are filed in the office of the city Superintendent of Buildings.

Floor plans (typical and schematic) of all factories of more than one-story in height, with description of physical properties, fire protection, hygiene, and occupancy are on file in office of State Industrial Commission. Information with reference to public buildings is obtained from the Commissioner of Public Safety and the Superintendent of Buildings. Information with reference to Catholic Institutions is obtained from the clerical Superintendent of Schools and Charities. Information with reference to other religious institutions is obtained from the various clergy in charge.

Personal inspection should be made of the buildings listed, and notes taken.

Insurance plans of all buildings are on file in all large insurance companies offices.

An outline for determining the availability of serums, toxins and vaccines in a given municipality and facilities for laboratory work.

1. Laboratories where the above materials are manufactured:
   Names and addresses and locations and officers.
   A—State Laboratory; B—City or county Laboratory; C—Private laboratories: Character of buildings and surroundings.
2. Commercial houses where supplies are stored:
   A—Wholesale houses.
   B—Drug stores.
   C—Antitoxins and vaccines held by local health authorities.

D—Sources from which local supply is drawn. (Large biological laboratories.)

3. Supplies held by physicians.
4. Available bacteriologists, biologists and chemists.
5. Types of containers for biological laboratories.

PROBLEM No. 4.

General Situation.

War has been in progress between the United States and a first-class foreign power for one year. Albany is being used as a base by armies operating toward the east and south. Large concentration camps have been located west and southwest of the city.

Special Situation.

Typhoid fever is prevalent in the concentration camps above-mentioned.

FIRST DIVISION NORTHERN ARMY,
SPECIAL ORDER Blank date, 8 P. M.
No. —

(Grade) Medical Corps will proceed immediately on receipt of this order to the concentration camps located west of Albany, N. Y., and investigate and report in writing at the earliest possible time to the Chief Surgeon Division such recommendations regarding the sewage and refuse disposal, and general policing of these camps as may be necessary to prevent the further spread of typhoid fever now prevalent there.

By command of MAJOR-GENERAL X.
X. Y. Z.,
Lieut.-Col., Adjt.-Gen.

(Grade)

FIRST DIVISION NORTHERN ARMY,
SPECIAL ORDER Blank date, 8 P. M.
No. —

(Grade) Medical Corps will proceed immediately on receipt of this order to the concentration camps located west of Albany, N. Y., and investigate and report in writing at the earliest possible time to the Chief Surgeon Division such recommendations regarding the immunization against typhoid fever of all persons present in these camps as may be necessary to prevent the further spread of typhoid fever now prevalent there.

By command of MAJOR-GENERAL X.
X. Y. Z.,
(Grade) *Lieut.-Col., Adjt.-Gen.*

First Division Northern Army,
Blank date, 8 p. m.

Special Order
No. —

(Grade) Medical Corps will proceed immediately on receipt of this order to the concentration camps located west of Albany, N. Y., and investigate and report in writing at the earliest possible time to the Chief Surgeon Division such recommendations regarding the water supply of these camps as may be necessary to prevent the further spread of typhoid fever now prevalent there.

By command of MAJOR-GENERAL X.

X. Y. Z.,

Lieut.-Col., Adjt.-Gen.

(Grade)

First Division Northern Army,
Blank date, 8 p. m.

Special Order
No. —

(Grade) Medical Corps will proceed immediately on receipt of this order to the concentration camps located west of Albany, N. Y., and investigate and report in writing at the earliest possible time to the Chief Surgeon Division such recommendations regarding the food and milk and the elimination of flies in these camps as may be necessary to prevent the further spread of typhoid fever now prevalent there.

By command of MAJOR-GENERAL X.

X. Y. Z.,

Lieut.-Col., Adjt.-Gen.

(Grade)

Problem No. 5.

General Situation.

War has been in progress between the United States and a foreign power for a year and a half. Part of eastern Massachusetts, the southern parts of Rhode Island and Connecticut and the lower portion of the Hudson Valley are in the hands of the enemy.

United States forces are strongly intrenched in positions north of Saratoga in New York State and in positions along the Berkshires and extending through Southern New England and the lower Hudson Valley. Albany, N. Y., is being used as a base for these armies.

(To be continued)

TYPHOID FEVER

PROPHYLAXIS.
DIAGNOSIS.
TREATMENT.

Typhoid Vaccine, Prophylactic.

For protective inoculation against typhoid fever.

The immunizing power of this vaccine is fully established.

Bio. 427—3 bulbs; 3 doses. Bio. 428—1 syringe; 3 doses.
*Bio. 426—3 syringes; 3 doses. Bio. 429—Hospital package, 30 doses.
*Supplied on unspecified orders.

Literature with each package.

Typhoid Agglutometer.

For diagnosis of typhoid fever.

The Widal Test without the use of either a live culture or a microscope.

Two forms: Typhoid Agglutometer No. 1 and
Typhoid Agglutometer No. 2.
See our catalogue, page 248.

Directions for use accompany each outfit.

Typhoid Phylacogen.

For the treatment of typhoid fever.

We have case reports of hundreds of patients treated with this modern therapeutic agent. They afford conclusive proof of the value of this Phylacogen.

Bulbs of 10 mils (Cc.), one in a package.
Bulbs of 1 mil (Cc.), five in a package.

Literature with each package.

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The attention of physicians is called to the advantages which this institution offers in methods of laboratory diagnosis. Many physicians, through lack of time, technical training, or proper laboratory equipment, find it difficult to utilize the many methods of microscopical and chemical examination, so essential to proper diagnosis. To the Alumni of the Albany Medical School, and to physicians generally, the Bender Laboratory offers at a moderate cost, facilities for such examinations. Animal inoculation, chemical, bacteriological and histological examinations will be made as the case requires.

The following directions are appended for the benefit of those who may forward material:

All specimens should be accompanied by a brief note of the clinical condition and a special reference to the character of the examination desired. Name and address of person to whom report is to be sent should be clearly indicated.

1.—Pathological material from either operation or autopsy should be wrapped in moist gauze surrounded by oiled paper or rubber protective. When it is not possible for material to reach the laboratory within twenty-four hours, it should be placed in alcohol (80%) or formalin solution (10%). Small fragments of tissue and the material from uterine curettage should always be so preserved.

2.—Sputum should be sent in clean wide-mouth bottles; the ordinary vaseline bottle answers all purposes. The same bottle is suitable for faeces. Urine should be in clean bottles containing not less than six ounces.

3.—Exudates and other material requiring a bacteriological examination by culture should be placed in containers previously sterilized by heat (not chemical disinfectants).

4.—Outfits for special purposes, as diphtheria cultures, Widal reaction, vaccines, Wassermann reactions, etc., will be sent upon application.

5.—Tissues and fluids for animal inoculation, e. g., hydrophobia, tetanus, tuberculosis, etc., are best sent packed in ice. In cases of suspected hydrophobia it is advisable to send the entire animal without injury to the brain or cord.

6.—Haematological examinations at the patient's home will be made by appointment.

7.—Milk and water for bacteriological examination should be sent in sterile glass containers, packed in ice. Special instructions for the collection of samples may be had upon application.

8.—Members of the staff are at all times available for the purpose of conducting post-mortem examinations.

9.—The fee for complete haematological examination at patient's home is $10.00; for post-mortem examination, according to the nature of the case and the time consumed; for the Wassermann reaction, $10.00; all other examinations, a uniform fee of $5.00. A special contract may be made for weekly or monthly examinations of milk. In the case of patients who cannot pay the full amount, these fees will be reduced.

Reports will be sent by telegraph if requested.

Letters and specimens should be addressed to

THE BENDER HYGIENIC LABORATORY,
LAKE AVENUE, ALBANY, N. Y.

THE BRANDOW PRINTING COMPANY, ALBANY, N. Y.

ALBANY HOSPITAL

New Scotland Avenue

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